

## ABSTRACT

A “*Burst Ratio*” is defined for use as a measure of the burstiness of a packet-based network. One illustrative implementation of the *Burst Ratio* ( $R$ ) is where  $R$  is equal to the ratio of the average length of observed bursts in a packet arrival sequence over the

5 average length of bursts expected for a random loss packet-based network. Another illustrative implementation of the *Burst Ratio* ( $R$ ) is in the context of a 2-state Markov model, wherein  $R = 1 / (1 + \alpha - \beta)$ , and  $\alpha$  is the probability of losing packet  $n$  if packet  $n-1$  was found (i.e., the probability of losing the next packet if the current packet was received) and  $\beta$  represents the probability of losing packet  $n$  if packet  $n-1$  was lost (i.e.,

10 the probability of losing the next packet if the current packet was lost).